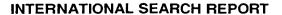
# PATENT COOPERATION TREATY





(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference		of Transmittal of International Search Report
PCT-162	ACTION (FOILI FC 17/15A/2	220) as well as, where applicable, item 5 below.
International application No.	International filing date (day/month/year)	(Earliest) Priority Date (day/month/year)
PCT/JP 03/02199	27/02/2003	09/04/2002
Applicant		
NACCAN MOTOR OF LAR		
NISSAN MOTOR CO., LTD.		
This International Search Report has bee according to Article 18. A copy is being to	n prepared by this International Searching Aut ansmitted to the International Bureau.	nonty and is transmitted to the applicant
	4	
This International Search Report consists    X	or a total of4 sheets.  a copy of each prior art document cited in this	s report.
1. Basis-of-the-report		
	international search was carried out on the ba less otherwise indicated under this item.	sis of the international application in the
the international search w Authority (Rule 23.1(b)).	vas carried out on the basis of a translation of	the international application furnished to this
b. With regard to any nucleotide ar		nternational application, the international search
was carried out on the basis of th	e sequence listing : onal application in written form.	
	ernational application in computer readable for	m.
furnished subsequently to	this Authority in written form.	
furnished subsequently to	this Authority in computer readble form.	
	bsequently furnished written sequence listing on the sequence listing of the s	does not go beyond the disclosure in the
		s identical to the written sequence listing has been
2. Certain claims were fou	nd unsearchable (See Box I).	
· 3. Unity of invention is lac	king (see Box II).	
4. With regard to the title,		
the text is approved as su	ubmitted by the applicant.	
	shed by this Authority to read as follows:	
	•	
5. With regard to the abstract,		
the text is approved as su	ibmitted by the applicant	
the text has been establis		ity as it appears in Box III. The applicant may, port, submit comments to this Authority.
6. The figure of the drawings to be pub	lished with the abstract is Figure No.	8
as suggested by the appl	icant.	None of the figures.
because the applicant fail	led to suggest a figure.	
because this figure better	characterizes the invention.	

Form PCT/ISA/210 (first sheet) (July 1998)

### INTERNATIONAL SEARCH REPORT

International Application No PCT/1P 03/02199

A. CLASSIFICATION OF SUBJECT MATURE IPC 7 H01M8/04 H01M8/06

06 CO1B3/48

According to International Patent Classification (IPC) or to both national classification and IPC

#### **B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 HO1M CO1B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUM	ENTS CONSIDERED TO BE RELEVANT	
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,P	EP 1 198 020 A (NISSAN MOTOR) 17 April 2002 (2002-04-17) paragraphs	1,3-5,7
	'0026!,'0027!,'0038!,'0044!,'0054! figure 7 	
A,P	EP 1 248 312 A (NISSAN MOTOR) 9 October 2002 (2002-10-09) paragraphs '0047!-'0068! figure 1	1-3,10,
Α	JP 09 245825 A (FUJI ELECTRIC CO LTD) 19 September 1997 (1997-09-19) abstract	1,3,4,10
	_/ <b>_</b> _	
- <u> </u>	<u> </u>	

X Further documents are listed in the continuation of box C.	γ Patent family members are listed in annex.
<ul> <li>Special categories of cited documents:</li> <li>"A" document defining the general state of the art which is not considered to be of particular relevance</li> <li>"E" earlier document but published on or after the international filing date</li> <li>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</li> <li>"O" document referring to an oral disclosure, use, exhibition or other means</li> <li>"P" document published prior to the international filing date but later than the priority date claimed</li> </ul>	<ul> <li>'T' later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</li> <li>'X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</li> <li>'Y' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</li> <li>'&amp;' document member of the same patent family</li> </ul>
Date of the actual completion of the international search	Date of mailing of the international search report
2 July 2003	11/07/2003
Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fay: (+31-70) 340-3016	Jacquinot, P

### INTERNATIONAL SEARCH REPORT

International Application No PCT 48 03/02199

	ation) DOCUMENTS CONSIDER TO BE RELEVANT		T
ategory °	Citation of document, with indication, where appropriate, of the relevant passages		Relevant to claim No.
A	US 6 331 366 B1 (VAN DINE LESLIE L ET AL) 18 December 2001 (2001-12-18) column 6, line 56 -column 7, line 50 figure 1		1,3-6, 10,11
A	US 2001/016275 A1 (TAKAMURA TOUSAKU) 23 August 2001 (2001-08-23) paragraphs '0029!-'0035! figure 3		1,3-6, 10,11
Α	US 6 294 149 B1 (AUTENRIETH RAINER ET AL) 25 September 2001 (2001-09-25) column 6, line 1-23 figure 1		1,3,11
		÷	
	·		

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No PCT4P 03/02199

Patent document cited in search report	t .	Publication date		Patent family member(s)	Publication date
EP 1198020	Α .	17-04-2002	JP EP US	2002124286 A 1198020 A2 2002045078 A1	26-04-2002 17-04-2002 18-04-2002
EP 1248312	Α	09-10-2002	JP EP US	2002305012 A 1248312 A2 2002146604 A1	18-10-2002 09-10-2002 10-10-2002
JP 09245825	Α	19-09-1997	NONE		·
US 6331366	B1	18-12-2001	AU DE JP WO	5884100 A 10084759 T0 2003502826 T 0079627 A1	09-01-2001 25-07-2002 21-01-2003 28-12-2000
US 200101627	5 A1 ·	23-08-2001	JP DE	2001229953 A 10107332 A1	24-08-2001 06-09-2001
US 6294149	B1	25-09-2001	DE DE EP EP US	19755813 A1 59807378 D1 0924161 A2 0924162 A2 6231831 B1	01-07-1999 10-04-2003 23-06-1999 23-06-1999 15-05-2001